



71

SEQUENCE LISTING

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<120> CXCR Agonist Treatment of Hematopoietic Cells

<130> SMAF-012CIP

<140> 10/086,177

<141> 2001-02-26

<150> 09/835,107

<151> 2001-04-12

<150> 60/232,425

<151> 2000-09-14

<150> CA 2,305,036

<151> 2000-04-12

<150> CA 2,335,109

<151> 2001-02-23

<160> 34

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Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn

65

<210> 2

<211> 93

<212> PRT

<213> Homo sapiens

<400> 2

Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
1 5 10 15
Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30
Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
35 40 45
Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
50 55 60
Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
65 70 75 80
Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
85 90

<210> 3

<211> 93

<212> PRT

<213> Homo sapiens

<400> 3

Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
1 5 10 15
Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30
Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
35 40 45
Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
50 55 60
Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
65 70 75 80
Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
85 90

<210> 4

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17): or
CTCE9902

<400> 4

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15
His

<210> 5

<211> 6

<212> PRT

<213> Artificial Sequence

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<223> Synthesized in Laboratory

<400> 5

Arg Phe Phe Glu Ser His
1 5

<210> 6

<211> 9

<212> PRT

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<223> Synthesized in Laboratory

<400> 6

Lys Pro Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 7

<211> 9

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<223> Synthesized in Laboratory: SDF-1 (1-9)
2-C9/C9-cysteine dimer: or CTCE9901

<400> 7

Lys Pro Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 8

<211> 10

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<213> Artificial Sequence

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<223> Synthesized in Laboratory

<221> VARIANT

<222> 10

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> 10

<223> Xaa = Any Amino Acid

<400> 8

Lys Pro Val Ser Leu Ser Tyr Arg Cys Xaa
1 5 10

<210> 9

<211> 9

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<220>
<223> Synthesized in Laboratory

<400> 9
Lys Pro Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 10
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<221> VARIANT
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<400> 10
Lys Pro Val Ser Leu Ser Tyr Arg Xaa
1 5

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<400> 11
Lys Pro Val Ser Leu Ser Tyr Arg
1 5

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<223> Synthesized in Laboratory: SDF-1 (1-14) - (G,
3-SDF-1 (55-67) acid

<400> 12
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 13
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<212> PRT
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<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
3-SDF-1 (55-67) acid: or CTCE0013

<400> 13
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 14
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<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
3-SDF-1 (55-67) amide

<400> 14
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 15
<211> 31
<212> PRT
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<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
3-SDF-1 (55-67) amide: or CTCE0017

<400> 15
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 16
<211> 33
<212> PRT
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<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) acid

<400> 16

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1									10					15	
His	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	Leu
				20				25					30		

Asn

<210> 17

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) acid

<400> 17

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1									10					15	
His	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	
				20				25					30		

Leu Asn

<210> 18

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) amide

<400> 18

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1									10					15	
His	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	Leu
				20				25					30		

Asn

<210> 19

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G;
3-SDF-1 (55-67) amide

<400> 19

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
5 10 15
His Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30
Leu Asn

<210> 20

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - E24/K28-cyclic acid

<400> 20

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 21

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/E24-cyclic acid

<400> 21

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 22

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - E24/K28-cyclic acid: or CTCE0022

<400> 22

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 23
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/E24-cyclic acid: or CTCE0021

<400> 23
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 24
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/D24-cyclic acid

<400> 24
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Asp Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 25
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/D24-cyclic amide

<400> 25
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Asp Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 26
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - C9/C11-cyclic acid

<400> 26

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 27

<211> 31

<212> PPT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - C9/C11-cyclic amide

<400> 27

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 28

<211> 33

<212> PPT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-MIP-1 alpha (36-50) amide

<400> 28

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln
20 25 30

Val

<210> 29

<211> 58

<212> PPT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-MIP-1 alpha (11-50) -acid or amide

<400> 29

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe
20 25 30
Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val
35 40 45

Ile Phe Leu Thr Lys Arg Ser Arg Gln Val
50 55

<210> 30
<211> 33
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-MIP-1 alpha (56-70) -acid or amide

<400> 30
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Glu Glu Trp Val Gln Lys Tyr Val Asp Asp Leu Glu Leu Ser
20 25 30

Aia

<210> 31
<211> 9
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-8)2-lysine
bridge dimer: CTCE9904

<400> 31
Lys Pro Val Ser Leu Ser Tyr Arg Lys
1 5

<210> 32
<211> 8
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-8)2-lysine
bridge dimer: CTCE9904

<400> 32
Lys Pro Val Ser Leu Ser Tyr Arg
1 5

<210> 33
<211> 40
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory

<400> 33

Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe Ile Ala
1 5 10 15
Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val Ile Phe
20 25 30
Leu Thr Lys Arg Ser Arg Gln Val
35 40

<210> 34

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-MIP-1 alpha (36-50) - acid

<400> 34

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln
20 25 30
Val